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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,948	03/31/2004	Masao Tanabe	50335-050	4930

7590 10/13/2006

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EXAMINER

BOATENG, ALEXIS ASIEDUA

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/812,948		TANABE ET AL.	
	Examiner		Art Unit	
	Alexis Boateng		2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Crisp (U.S. 6,456,035).

Regarding claim 1, Crisp discloses an AC adapter power supply apparatus comprising:

a line supplying a DC voltage converted by and AC-DC conversion circuit to a DC output circuit (figure 2 items 26 (ac-dc conversion circuit) and item DC output battery interface);

a battery switch (figure 2 item 34) circuit for supplying the DC voltage converted by the AC-DC conversion circuit to a battery via a charging circuit (figure 2 item 18) and for controlling contact and separation of the battery and a DC-DC conversion circuit (figure 6 items 105' and 110'), and

a line for supplying to the DC output circuit via the DC-DC conversion circuit for increasing and decreasing the voltage from the battery (figure 6 items 105' and 110'),

wherein a DC output detection circuit is connected to an output side of the AC-DC conversion circuit (figure 2 items 26 and item DC output battery interface), and

wherein the output side of the DC output detection circuit is connected to an apparatus status output circuit for outputting a status monitoring signal to the outside and to the battery switch circuit (column 4 line 26 – 38),

wherein an output voltage changeover switch for switching a set-up output voltage is connected to the AC-DC conversion circuit and the DC-DC conversion circuit (figure 2 item 70).

Regarding claim 2, Crisp discloses wherein the battery is connected to a battery voltage detection circuit for detecting voltage of the battery (figure 2 item 58), and the output side of the battery voltage detection circuit is connected to the apparatus status output circuit (figure 2 item U1) for outputting the status monitoring signal to the outside (figure 2 item 18; item 58 is located within item 18 wherein the microcontroller outputs the status signal) and the battery switch circuit for controlling the contact and separation of the battery and the DC-DC conversion circuit (figure 2 item 34; column 4 lines 8 – 25).

Regarding claim 3, Crisp discloses wherein the charging circuit (figure 2 item 18) is connected to a charging on-off switch (figure 2 item 34; column 4 lines 8 – 26; column 9 lines 1 - 29) for outputting a signal which connects the AC-DC conversion circuit (figure 2 item 26) to the battery when the battery is a secondary battery and separates the the AC-DC conversion circuit from the battery when the battery is a primary battery (figure 2 item 26 (bridge rectifier), is separated from item 14 (battery), by item 18 (charge circuit); claim 31 discloses wherein the system distinguishes between primary and secondary batteries).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crisp (U.S. 6,456,035) in view of Mattsson (U.S. 5,233,284).

Regarding claim 4, Crisp discloses the battery switch (figure 2 item 34), but does not disclose the remainder of the invention as claimed. Mattsson discloses in figure 4 item S1, wherein a switch for connecting the battery to the DC-DC conversion circuit (figure 4 item DC/DC converter) to the battery when the AC input is missing. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Crisp system with the Mattsson system so that system can be manually turned on and off when an AC power source is unavailable.

Response to Arguments

5. Applicant's arguments filed 7/18/06 have been fully considered but they are not persuasive. **Regarding claims 1 and 4**, the applicant argues that the Crisp reference does not disclose a DC-DC conversion circuit, which increases and decreases voltage. Crisp discloses in figure 6 wherein items 105' and 110' are both boost and buck

converters, respectively, which increase and decrease voltage. Column 11 lines 25 – column 12 lines 40 discloses wherein the voltage stored in the capacitors, which act as batteries are increased or decreased. The applicant further argues that Crisp does not disclose an apparatus for outputting a status monitoring signal to the outside. Crisp discloses in figure 2, wherein item 82 is a user interface which shows the status of the battery as disclosed in column 5 lines 4 – 18. The applicant continues to argue wherein Crisp does not disclose a changeover switch coupled to the DC-DC converter. Figure 4 shows wherein item U2 is comprised within the switch driver circuit, item 70. The same U2, which is a component of the switch driver, along with its other components, are shown in figure 6 to be disposed within the boost converter circuit.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexis Boateng whose telephone number is (571) 272-5979. The examiner can normally be reached on 8:30 am - 6:00 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on (571) 272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AB


KARL EASTHOM
SUPERVISORY PATENT EXAMINER